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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,734	12/27/2001	Blair T. Mackiewich	A363 0017	1964

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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/026,734	MACKIEWICH ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Response filed on 1/20/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-28 are rejected tmder 35 U.S.C. 102(e) as being anticipated by Laubach et al the U.S. Patent. No.: 6,917,614, hereinafter referred to as Laubach.

Regarding claims 1, 11, 16 and 28, Laubach teaches data handling apparatus (see Fig. 1 and 22, item 103) for handling data frames (see col. 38, lines 24-65, and col. 40, line 4-23) which are each associated with one of a plurality of priorities (see col. 42, lines 24-56) the apparatus comprising:

a bridge (see Fig.1 & 38, item 103) having a plurality of bridge ports (see Fig. 1&38, items 310, 311, 2101, 2103) a first one of the bridge ports having a plurality of service interfaces: (see col. 32, lines 1-11, Fig. 31 items 311, 2101, and 2103. The integrated services interfaces includes Video Controller Port Card 2101 and Voice Controller Port Card 2103 means a plurality of service intefaces), each of the service interfaces associated with a channel (see Fig.1 & 38, col.8, lines 16-28) in a connection-based network (see col.12, lines 16-59);

a map associated with the first one of the bridge ports (see Fig.28, item 2702), the map providing a correspondence between each of the plurality of priorities and one of the service

interfaces (see col. 25, line 38-51, or col. 39, lines 27-50, Fig. 33, item 3318, 3302 and item 3320 in item 3101;

Refer to fig.9, the 3-port bridge and forwarder 902 (a forwarding system) receives Ethernet frames via ethernet interface 801, retrieves from table 907 VPI/VCI values (channel ID), forwarding port number (identifying service interfaces), priority indication (reading priority) for the ATM virtual connection. Ethernet frame is converted into ATM cells by a processor 904 and transmitted to scheduler 910 as ATM cells 905. The scheduler 910 schedules the transmission of ATM cells corresponding QOS information 913 and VPI/VCI values over ATM link 917/918 to ATM switch 803 (forwarding data frame over the channel in connection-based network associated with the identified service interface). See col.19, lines 5-25 & lines 63 to col.20, lines 20 &col. 21, lines 5-20 (the 3-port bridge identifies a service interface (retrieving a forwarding port number from table 907), a forwards data frames over the channel (ATM link 917/918) via) in a connection-based network.

Regarding claim 2. Laubach teaches the apparatus of claim 1 wherein the map (Fig. 28, or Fig. 29, item 2702 or item 2712 means the map) comprises a lookup table (see col. 37, lines 19-55).

Regarding claim 3. Laubach teaches the apparatus of claim 1 each of the service interfaces is associated with a channel identified (see col.13, lines 20-58, and col. 30, lines 44-67) by a predetermined connection identifier (see col. 19, lines 4-26, and col. 39, lines 27-50.).

Regarding claim 4. Laubach teaches the apparatus of claim 3 wherein the connection-based network comprises an ATM network (see col. 18, lines 3-36.), channels in the connection-based network are each identified by a connection identifier (see claim 3 above) comprising a

VPI and a VCI (see col. 30, lines 44-67) and each of the service interfaces associated with the first one of the bridge ports is associated with a channel having the same predetermined VPI (see col. 19, lines 4-26, and col. 39, lines 27-50.).

Regarding claim 5. Laubach teaches the apparatus of claim 4 wherein each of the service interfaces associated with the first one of the bridge ports is associated with a channel (see Fig. 1 &38, col. 8, lines 16-28) having a predetermined VCI (see col.19, lines 4-26, and col. 39, lines 27-50) and the VCI associated with each of the service interfaces associated with the first one of the bridge ports is different from the VCI associated with other ones of the service interfaces associated with the first one of the bridge polls (see col. 23, lines 6-41, and col. 36, lines 4-31).

Regarding claim 6. Laubach teaches the apparatus of claim 4 wherein a plurality of the bridge ports each have a plurality of associated service interfaces, the service interfaces associated with each one of the bridge ports are all associated with channels (see Fig. 1&38, col. 8, lines 16-28) having the same predetermined VPI (see col. 21, line 35-to-col. 22, lines 41) and the service interfaces associated with different ones of the plurality of bridge ports are associated with channels having different predetermined VPIs (see col. 3 7, lines 19-55.).

Regarding claim 7. Laubach teaches the apparatus of claim 1 comprising a mechanism configured to identify a service interface by way of which a data frame is received at the first one of the bridge ports from the connection-based network (see col. 21, line 35-63.), assign a priority (see col. 28, lines 13-23) to the dau frame based upon the correspondence provided by the map and tag the data frame with the assigned priority (see col. 39, lines 27-50).

Regarding claim 8. Laubach teaches the apparatus of claim 1 comprising a scheme comprising a plurality of maps (see Fig.29, items 2702, 2712, 2802, 2708) each of the plurality

of maps applicable to a different number of available channels wherein the forwarding system is configured to determine a number of available channels associated with the first bridge port and to select one of the plurality of maps in the scheme based upon the number of available channels (see col. 35, line 54-to-col. 36, line 31).

Regarding claim 9. Laubach teaches the apparatus of claim 8 wherein the maps in the scheme provide mappings such that when the number of available channels is increased by adding a new available channel, the forwarding system selects a next one of the plurality of maps which requires rerouting only of frames having priorities corresponding to the new available channel (see col. 35, line 54 to col.36, line 31.).

Regarding claim 10. Laubach teaches the apparatus bf claim 9 wherein the plurality of maps specify the correspondences between priorities and channels set out in Table 1 (see col. 27, lines 34 to col.28, lines 61.).

Regarding claim 12. Laubach teaches the bridge of claim 1 1 wherein the connection-based network comprises an ATM network (see col. 18, lines 3-36) and the first one of the bridge ports is associated with a predetermined VPI (see col. 21, line 35-to-col. 22, lines 41).

Regarding claim 13. Laubach teaches the bridge of claim 12 wherein each of the service interfaces is associated with a predetermined VCI (see col. 21, line 35-to-col. 22, lines 41.).

Regarding claim 14. Laubach teaches the bridge of claim 1 l wherein the means for reading user priorities reads a three bit field in frames tagged with tlser priorities (see col. 27, line 34-to-col. 28, lines 23).

Regarding claim 15. Laubach teaches the bridge of claim 11 wherein the means for assigning frames received at the bridge port to the output ports operates according to Table I (see col. 27, line 18-to-col. 28, lines 61).

Regarding claim 17. Laubach teaches the method of claim 16 comprising, before assigning the frames to one of the plurality of service interfaces, dropping any frames addressed to nodes on the first segment (see col. 23, line 42-to-col. 24, lines 33.).

Regarding claim 18. Laubach teaches the method of claim 17 comprising, dropping the frames addressed to nodes on the first segment before reading the user priorities of the frames (see col. 23, line 42-to-col. 24, lines 33, and col. 25, lines 7-25.).

Regarding claim 19. Laubach teaches the method of claim 16 comprising identifying a set of the service interfaces which correspond to available channels (see col. 42, lines 24-56) wherein assigning each of the frames to one of a plurality of output ports comprises selecting a mapping based upon the number of available channels (see col. 24, lines 34-58) and assigning the frames to service interfaces of the set of service interfaces which correspond to available channels according to the mapping (see col. 23, lines 6-41.).

Regarding claim 20. Laubach teaches the method of claim 19 comprising assigning each of the frames to one of a plurality of service interfaces according to Table 1 (see col. 27, line 18-to-col. 28, lines 61.).

Regarding claim 21. Laubach teaches the method of claim 19 comprising, while a current mapping is in effect, determining that a next channel has become available (see col. 38, lines 40-65) and switching to a next mapping, wherein the next mapping differs from the current mapping only in that one or more priorities are associated with the next channel (see col. 42, lines 4-56.).

Regarding claim 22. Laubach teaches the method of claim 19 comprising, upon failure of a channel associated with one of the service interfaces, adjusting the mapping by remapping one or more priorities associated with the one of the service interfaces to one or more other ones of the service interfaces (see col. 36, line 4-to-col. 37 line 55.).

Regarding claim 23. Laubach teaches the method of claim 22 wherein adjusting the mapping comprises bumping frames of each priority assigned to the failed channel to a channel associated with a next lower priority (see col. 38, lines 40-65, and col. 28, lines 13-62.).

Regarding claim 24. Laubach teaches the method of claim 22 wherein adjusting the mapping comprises bumping frames of each priority assigned to the failed channel a channel associated with a lowest priority for which a channel remains available (see col. 28, lines 13-62).

Regarding claim 25. Laubach teaches the method of claim 19 comprising upon failure of a channel associated with one of the service interfaces dropping frames having priorities associated with the one of the service interfaces (see col. 36, line 4 -to- col. 37 line 55.).

Regarding claim 26. Laubach teaches the method of claim 19 comprising identifying a service interface by way of which a frame is received at one of the bridge ports from the connection-based network (see col. 25, line 38-51.), assigning a priority to the data frame based umn the correspondence provided by the map and tagging the data frame with the assigned priority (see col. 25, line 38-51, or col. 39, lines 27-50.).

Regarding claim 27. Laubach teaches the method of claim 25 wherein the map assoiates a plurality of priorities with the identified and the method comprises tagging the frame with a lowest one of the plurality of priorities (see col. 35, line 54-to-co1.36, line 31.).

Response to Arguments

Applicant's arguments filed on 1/20/06 have been fully considered but they are not persuasive.

Regarding claims 1, 11, 16 and 28, Applicant argues that Laubach et al. does not discloses: The map provide correspondence between each of priorities and one of service interface; and Bridge 3309 (the 3-port bridge) does not forward data frames over channel in a connection-based network and does not identify a service interface corresponds to user priority.

Refer to Laubach discloses, in fig.10, queue controller 1018 maps ATM cells 1028 corresponding to its priorities (priority of ATM virtual connections), places the cells in the queues in the order of priority. The ATM cells transmitted comprise video, voice and data. Therefore, they are transmitted via video card 2101, or voice card 2103 or Ethernet card 311 (service interfaces) correspondence with the type of data. One skilled in the art should understand that video data transmitted via video card has a priority higher than voice transmitted via voice card and data transmitted via ethernet card has a lowest priority. See col.25, lines 38-41 & col.26, lines 60 to col.27, line 5 & col.32, lines 1-10 and fig.21. Therefore, examiner believes there is a mapping between each type of ATM cells (video data, voice or data) to be transmitted and the each type of service interfaces (video card 2101, Ethernet card 311 and voice card 2103).

Refer to fig.9, the 3-port bridge and forwarder 902 receives Ethernet frames via ethernet interface 801, retrieves from table 907 VPI/VCI values (channel ID), forwarding port number (identifying service interfaces) , priority indication for the ATM virtual connection. Ethernet frame is converted into ATM cells by a processor 904 and transmitted to scheduler 910 as ATM cells 905. The scheduler 910 schedules the transmission of ATM cells corresponding QOS

information 913 and VPI/VCI values over ATM link 917/918 to ATM switch 803. See col.19, lines 5-25 & lines 63 to col.20, lines 20 &col. 21, lines 5-20. Therefore, examiner believes that the 3-port bridge identifies a service interface (retrieving a forwarding port number from table 907), a forwards data frames over the channel (ATM link 917/918) via) in a connection-based network.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

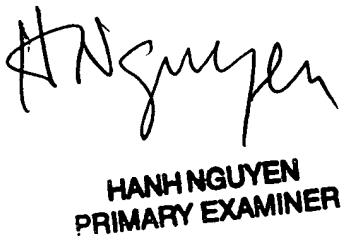
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-FRiday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



HANH NGUYEN
PRIMARY EXAMINER